

1 **What is claimed is:**

2 1. A method for bonding a coating to a material web, comprising the steps
3 of:

4 (a) bonding the coating and the material web together by glue;

5 (b) heating the material web having the coating bonded thereto; and

6 (c) removing air between the coating and the material web to
7 thereby provide thorough bonding between the coating and the material
8 web.

9 2. The method as claimed in claim 1, wherein the step of removing air
10 between the coating and the material web is achieved by an aspirating
11 means.

12 3. The method as claimed in claim 1, further comprising forcibly blowing air
13 to the material web/coating in step (c) along a direction of the air removal
14 direction.

15 4. The method as claimed in claim 1, further comprising a step of cooling the
16 material web/coating after step (c).

17 5. An apparatus for bonding a coating to a material web, the apparatus
18 comprising:

19 a first feeding roller for feeding a material web;

20 a second feeding roller for feeding a coating;

21 a glue-applying roller for applying glue to a face of the coating from
22 the second feeding roller;

23 a heating roller, the material web and the glued coating being bonded
24 together before passing through the heating roller, the heating roller
25 heating the material web having the glued coating bonded thereto; and

1 means for removing air between the material web/coating that has
2 been heated by the heating roller.

3 6. The apparatus as claimed in claim 5, wherein the material web is a web of
4 spandex mesh.

5 7. The apparatus as claimed in claim 5, wherein the material web is a web of
6 foam.

7 8. The apparatus as claimed in claim 5, wherein the air removing means
8 comprises at least one aspiration cylinder through which the heated
9 material web/coating passes, said at least one aspiration cylinder
10 comprises a longitudinal chamber and a plurality of vents in an outer
11 periphery thereof and communicated with the longitudinal chamber, the
12 longitudinal chamber having an outlet, the air removing means further
13 comprising an aspiration means having an inlet communicated with the
14 outlet of the longitudinal chamber.

15 9. The apparatus as claimed in claim 5, further comprising an air supply
16 system for blowing air to the material web/coating passing through the
17 air-removing means.

18 10. The apparatus as claimed in claim 8, further comprising an air supply
19 system for blowing air to the material web/coating passing through said at
20 least one aspiration cylinder.

21 11. The apparatus as claimed in claim 5, further comprising a reel for reeling
22 the material web/coating that has passed through the air-removing means.

23 12. The apparatus as claimed in claim 8, further comprising a reel for reeling
24 the material web/coating that has passed through aid at least one aspiration
25 cylinder.

- 1 13. The apparatus as claimed in claim 5, further comprising a cooling roller
2 between the reel and the air-removing means.
- 3 14. The apparatus as claimed in claim 12, further comprising a cooling roller
4 between the reel and the air-removing means.
- 5 15. The apparatus as claimed in claim 5, wherein the air-removing means is a
6 vacuum pump.
- 7 16. The apparatus as claimed in claim 5, wherein the air removing means
8 comprises an aspiration bed through which the heated material
9 web/coating passes, the aspiration bed comprising a central chamber and a
10 plurality of vents communicated with the central chamber, the central
11 chamber having an outlet, the air removing means further comprising an
12 aspiration means having an inlet communicated with the outlet of the
13 central chamber.
- 14 17. The apparatus as claimed in claim 16, further comprising a reel for reeling
15 the material web/coating that has passed through the air-removing means.
- 16 18. The apparatus as claimed in claim 17, further comprising a cooling roller
17 between the reel and the air-removing means.
- 18 19. The apparatus as claimed in claim 5, wherein the coating is transparent.
- 19 20. The apparatus as claimed in claim 6, wherein the coating is transparent.
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